



135949

# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF WASTE MANAGEMENT

11th Floor, Monroe Building

101 N. 14th Street

Richmond, VA 23219

(804) 225-2667

August 18, 1988

Ruth Rzepski (3HW16)  
Enforcement Project Manager  
U.S. EPA  
Region III  
841 Chestnut Building  
Philadelphia, PA 19107

Re: Comments on Revised Draft FS for Avtex Fibers Site

Dear Ms. Rzepski:

Listed below are comments on the Revised Draft Feasibility Study submitted by G & M Consulting Engineers, Inc. on behalf of Avtex Fibers, Inc. and FMC Corp. Based on the revised FS, the Department of Waste Management does not agree with the choice of Remedial Alternative 3 (soil cap Viscose Basins 9, 10, 11; ground water and basin leachate recovery with treatment in existing WWTP) as the preferred alternative. Referring to my comment letter on the Draft FS dated May 25, 1988 (copy attached), Items 1, 2, 3, 4, and 6 have not been adequately addressed in the Revised Draft FS. These items form the basis for not agreeing with the choice of Remedial Alternative 3.

Additional comments concerning the FS are as follows:

1. The fact that water is not used in the manufacturing of polypropylene does not imply that waste generated by the process could not potentially impact ground water (p. 1-13, 1st para.).
2. Hydrolysis is listed as the primary mechanism for CS<sub>2</sub> removal from the viscose basins. This has not been substantiated by data (p. 1-25, 1st para.).

AR303892

00264

Ruth Rzepski  
Page 2  
August 18, 1988

3. Release of contaminants from the viscose basins is attributed principally to precipitation infiltration and leaching from solid viscose waste (p. 1-25, 2nd para.). This contradicts Item 2 above.
4. Sulfides were listed as having only an aesthetic impact; no health risk assessment was provided (p. 1-29, 2nd para.).
5. The potential exposure pathways identified did not include ground water use in property not controlled by Avtex Fibers in Rivermont Acres (p. 1-29, 3rd para.). Unless Avtex has ownership of all property in this development, this pathway should be included since future use can not be controlled.
6. The value of 4 mg/l for CS<sub>2</sub> should not be listed as the aquifer restoration goal (p. 1-33). This value should correspond to the level to be established by ongoing toxicological discussions between G & M, EPA, and DWM.
7. Process options potentially applicable for treatment of the viscose waste listed in Figure 2-2C included mechanical dewatering, drying, low temperature thermal stripping, and heap leaching in addition to incineration (p. 2-8). The advantage of incineration is the permanent destruction of the contaminants and elimination of long-term O&M. The disadvantage is worker exposure due to waste handling. Other technologies listed above offer the advantage of permanent destruction without the prohibitively high cost associated with incineration and with the same health/safety risk to workers handling the waste. Why were they eliminated?
8. Does data exist to show that the lowest points in the three viscose basins are along the western edges (p. 2-26, Sec. 2.4.6.2)?
9. How can in-situ flushing be as effective as any above ground solvent flushing technique (p. 2-31, last para.)? Above ground flushing would be preceded by shredding of the solid waste. This would dramatically increase the surface area available for contact between waste and solvent, and therefore, the effectiveness of solvent flushing. In addition, in Sec. 2.4.13 it is stated that injection of treatment fluids throughout the areal and vertical extent of the viscose basins would be unreliable due to the nature of the waste. Wouldn't this same problem inhibit the effectiveness of in-situ flushing by infiltration of precipitation?

AR303893

00000

10. Effectiveness of a leachate collection system for the viscose basins would be limited as discussed in Sec. 2.4.7. This would impact the effectiveness of Remedial Alternative 3.
11. In Figure 2-4C, heap leaching is eliminated from further consideration due to difficulty in implementation and limited effectiveness. Why is heap leaching more difficult to implement than incineration? Both technologies would utilize in-situ dewatering, excavation, mechanical dewatering, and shredding of the waste. The effectiveness issue is discussed in Item 9 above.
12. The existing WWTB must be demonstrated to be able to treat the viscose basin fluids and ground water and meet the NPDES permit requirements.
13. Comparison of dewatered waste near the surface with waste deep in the viscose basins demonstrates little if anything due to differing environmental conditions and waste characteristics (p. 3-12, 2nd para).
14. If present water table conditions are not due to mounding effects from the viscose basins, effective dewatering of the basins may not be possible without implementing additional ground water controls.
15. Why will 6 to 8 years be required to implement Remedial Measure 4 (p. 3-21, last para.)? If two years are given for dewatering, 4 to 6 years remain for landfill construction and waste excavation. This seem excessive.
16. Soil or clay caps do not reduce toxicity or volume of waste constituents. A clay cap may reduce the mobility of constituents; a soil cap will not (p. 3-31, last para.). In fact, the next sentence states that the soil cap will promote natural flushing of viscose waste constituents.

AR303894

Jul 20 1988

Ruth Rzepski  
Page 4  
August 18, 1988

17. Remedial Alternative 3 does not reduce the infiltration of contaminants into ground water but rather promotes this action (p. 4-36, 1st para). Because Sec. 2.4.7 states that a leachate collection system may not be effective, contamination of ground water is likely to continue.

If you have any questions or comments, please contact me at (804) 225-3257.

Sincerely,



James A. Adams  
RD/RA Supervisor

cc: Cynthia V. Bailey  
John Butcher, AGO  
Kenneth R. Hinkle, SWCB  
K. C. Das  
J. D. Horin

AR303895

00257